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Manufacturers' Shipments, Inventories, and Orders

March 1970



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New orders for manufactured products in March decreased \$1.1 billion to \$53.8 billion, after seasonal adjustment, the Bureau of the Census, U.S. Department of Commerce, announced today. Shipments decreased \$700 million to \$54.9 billion. The backlog of unfilled orders at \$86.7 billion declined \$1.1 billion from February as shipments during March exceeded new orders received. Manufacturers' inventories rose \$100 million to a total of \$96.7 billion from \$96.6 billion at the end of February. The inventories to shipments ratio rose to 1.76 from 1.74 in February.

For the 3 months ending in March, the average monthly change in new orders was a decrease of 0.9 percent compared with a decrease of 0.9 percent for the 3 months ending in December and an increase of 1.8 percent for the 3 months ending in September.

NEW ORDERS

New orders for durable goods at \$28.6 billion decreased \$1.1 billion from the February total of \$29.7 billion. This 3.5 percent decline revises the preliminary estimate of a decline of 1.8 percent published earlier. New orders in nondurable goods at \$25.2 billion remained virtually unchanged from February. In the transportation industry, new orders decreased \$700 million as all segments declined. New orders for the machinery industries decreased \$500 million to \$8.8 billion while primary metals increased \$100 million to \$4.5 billion and fabricated metals remained unchanged at \$3.1 billion.

Among the supplementary series, new orders for machinery and equipment (producers' capital goods) decreased \$600 million to \$6.0 billion. New orders for defense products at \$1.6 billion were \$300 million below February but household durables increased \$100 million to \$2.1 billion. (SEE CHART 1)

Chart 1 - Manufacturers' New Orders (Seasonally Adjusted)

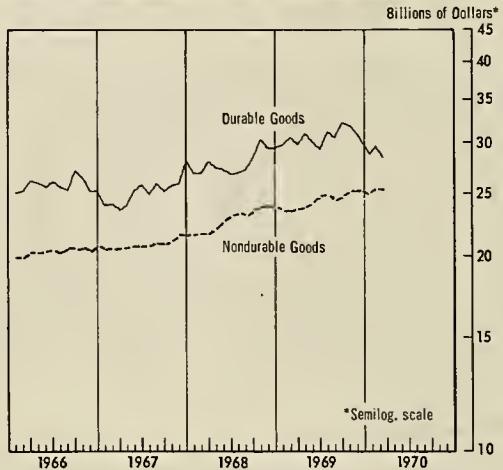
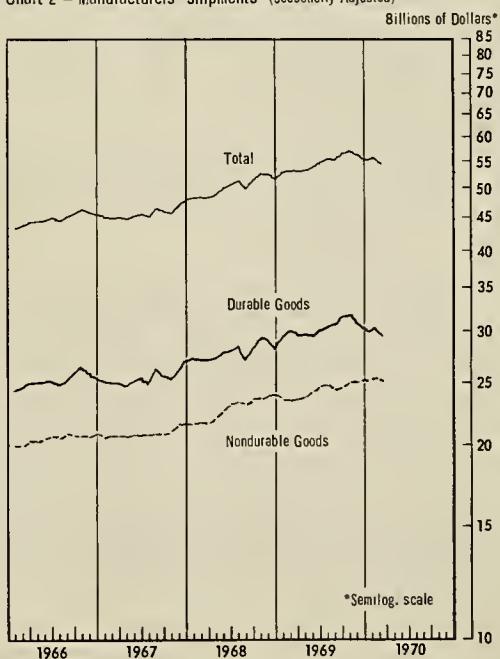


Chart 2 - Manufacturers' Shipments (Seasonally Adjusted)



SHIPMENTS

Manufacturers' shipments of durable goods decreased \$700 million to \$29.7 billion from \$30.4 billion in February. Shipments of transportation equipment decreased \$300 million to \$7.1 billion with the decrease primarily in the automotive area. Shipments of the machinery industries declined \$200 million to \$9.1 billion and shipments of primary metals at \$4.7 billion and fabricated metals at \$3.2 billion declined \$100 million each. Shipments of nondurable goods remained virtually unchanged at \$25.1 billion. An increase in the foods industry was offset by a decline in the chemical industry. (SEE CHART 2)

UNFILLED ORDERS

Unfilled orders of durable goods at \$83.7 billion were \$1.1 billion or 1.3 percent below the backlog at the end of February. Although declines in backlog were general, the transportation industry recorded the largest decline as its backlog fell \$500 million to \$30.5 billion at the end of March. The aircraft backlog declined by \$300 million with declines of \$100 million each in the automotive and the shipbuilding and railroad equipment groups. The machinery industries experienced a \$300 million decline to \$30.4 billion and primary metals fell \$200 million to \$6.8 billion at the end of March. (SEE CHART 3)

INVENTORIES

Inventories in the durable goods industries increased \$200 million to \$64.2 billion from \$64.0 billion in February while those in the nondurable goods industries decreased \$100 million to \$32.5 billion at the end of March. The largest dollar gain in durables occurred in the primary metals industry as other industries showed mixed patterns. In the nondurable goods industries, the pattern was also mixed. Small increases in materials and supplies were partially offset by a small decline in finished goods as work in process remained virtually unchanged. (SEE CHART 4)

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industry categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for April is scheduled for release on May 21 and the full report is scheduled for release on June 2.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Chart 3 - Manufacturers' Unfilled Orders (Seasonally Adjusted)

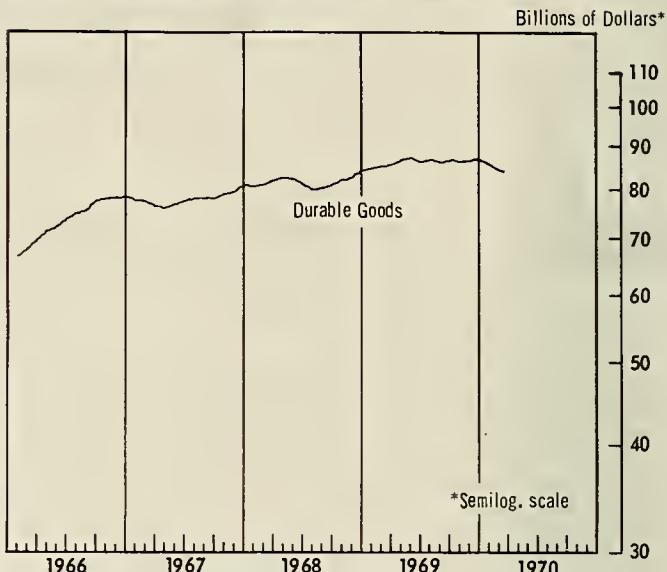


Chart 4 - Total Inventory (Seasonally Adjusted)

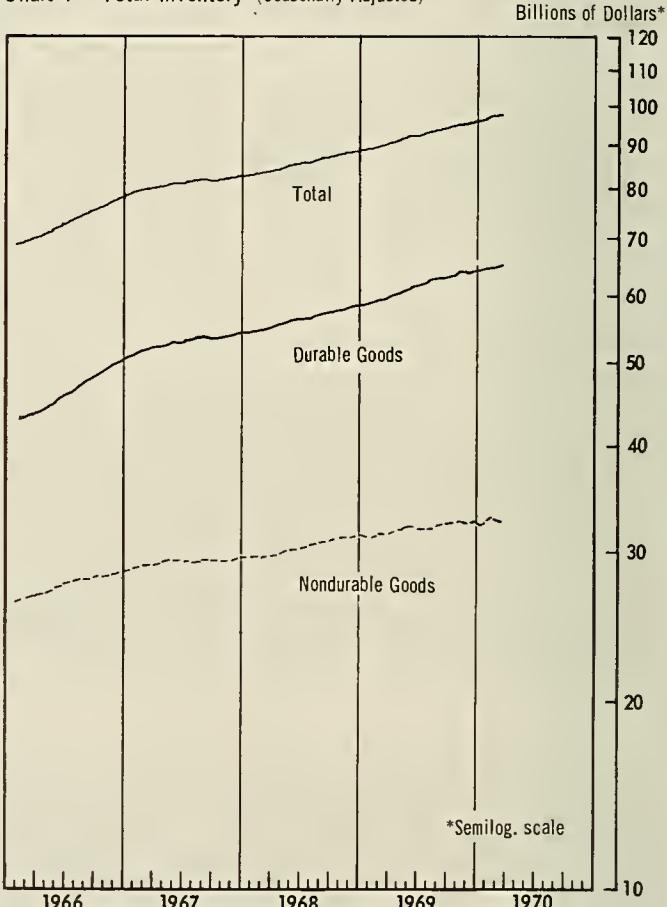


Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Mar. 1970 ^P	Feb. 1970 ^r	Jan. 1970	Mar. 1970 ^P	Feb. 1970 ^r	Mar. 1969	Mar. 1970 ^P	Feb. 1970 ^r	Jan. 1970	Mar. 1970 ^P	Feb. 1970 ^r	Mar. 1969
Shipments									Total inventories			
All manufacturing industries:												
Total.....	54,860	55,588	55,099	57,012	56,249	55,254	96,682	96,603	96,062	97,272	97,181	90,885
Total, excluding transportation.....	47,756	48,229	48,274	49,421	44,887	47,440	81,178	81,071	80,426	81,692	81,549	76,468
Durable goods industries, total.....	29,715	30,402	30,042	31,189	30,780	31,054	64,194	63,969	63,835	64,530	64,244	59,293
Stone, clay, and glass products.....	1,528	1,519	1,475	1,470	1,356	1,387	2,526	2,542	2,506	2,610	2,593	2,440
Primary metals, total.....	4,694	4,796	5,138	5,004	4,957	4,884	8,342	8,126	8,104	8,300	8,182	7,588
Blast furnaces, steel mills.....	2,055	2,155	2,474	2,240	2,213	2,305	4,454	4,267	4,260	4,383	4,306	4,009
All other primary metals.....	2,639	2,641	2,664	2,764	2,744	2,579	3,888	3,859	3,844	3,917	3,876	3,579
Fabricated metal products, total.....	3,178	3,245	3,310	3,239	3,222	2,994	6,675	6,676	6,660	6,731	6,669	6,272
Metal cans, barrels, and drums.....	293	288	332	289	261	282	794	791	767	801	777	658
Machinery, except electrical, total.....	5,480	5,638	5,536	5,893	5,805	5,720	13,438	13,344	13,241	13,590	13,481	11,977
Engines and turbines.....	505	458	474	570	443	503	955	976	950	964	995	883
Farm machinery and equipment.....	448	481	488	551	532	557	971	959	948	1,018	1,012	986
Construction, mining, and material handling equipment.....	705	764	772	736	775	734	2,304	2,250	2,238	2,354	2,299	2,060
Metalworking machinery.....	329	350	353	358	365	352	1,183	1,147	1,129	1,177	1,146	1,026
General industrial machinery.....	514	556	556	542	570	510	1,135	1,129	1,115	1,145	1,131	993
Electrical machinery, total.....	3,633	3,719	3,574	3,776	3,762	3,867	9,487	9,482	9,407	9,480	9,416	8,728
Electrical transmission and distribution equipment and industrial apparatus.....	741	726	661	771	732	739	1,976	1,958	1,935	1,982	1,965	1,813
Household appliances, including radio and TV.....	688	674	666	718	673	773	2,116	2,126	2,118	2,087	2,091	1,989
Communication equipment.....	1,036	1,095	1,072	1,086	1,111	1,068	2,784	2,823	2,807	2,801	2,809	2,547
Transportation equipment, total.....	7,104	7,359	6,825	7,591	7,627	7,814	15,504	15,532	15,636	15,580	15,632	14,417
Motor vehicles and parts.....	3,527	3,763	3,608	3,862	3,924	4,446	4,153	4,164	4,231	4,132	4,255	4,268
Aircraft, missiles, and parts.....	2,987	2,936	2,610	3,088	3,036	2,752	9,397	9,446	9,484	9,464	9,405	8,404
Instruments and related products.....	1,207	1,192	1,171	1,229	1,159	1,101	2,578	2,520	2,484	2,559	2,498	2,303
All other durable goods industries.....	2,891	2,934	3,013	2,987	2,982	3,287	5,644	5,747	5,797	5,680	5,773	5,568
Nondurable goods industries, total.....	25,145	25,186	25,057	25,823	25,469	24,200	32,488	32,634	32,227	32,742	32,937	31,592
Food and kindred products, total.....	8,622	8,468	8,452	8,678	8,506	7,825	7,456	7,423	7,200	7,388	7,464	7,149
Meat products.....	1,799	1,740	1,761	1,788	1,724	1,711	820	830	793	864	868	730
Tobacco products.....	437	424	456	430	407	404	2,159	2,143	2,165	2,263	2,270	2,333
Textile mill products.....	1,780	1,741	1,779	1,830	1,761	1,830	3,441	3,454	3,455	3,501	3,498	3,610
Paper and allied products, total.....	2,357	2,364	2,351	2,439	2,386	2,259	2,682	2,681	2,661	2,692	2,669	2,428
Pulp, paper, etc.....	1,022	1,029	1,018	1,066	1,045	961	1,049	1,039	1,027	1,056	1,048	962
Chemicals and allied products, total.....	4,082	4,225	3,986	4,312	4,243	4,106	6,639	6,613	6,551	6,761	6,745	6,295
Industrial chemicals, except pigments.....	1,388	1,452	1,412	1,457	1,480	1,395	2,184	2,178	2,171	2,228	2,234	2,131
Petroleum and coal products.....	2,094	2,162	2,206	2,053	2,167	1,930	2,307	2,318	2,320	2,304	2,286	2,066
Rubber and plastics products, n.e.c.....	1,553	1,549	1,474	1,623	1,571	1,387	1,985	1,951	1,914	2,023	1,978	1,833
All other nondurable goods industries.....	4,220	4,253	4,353	4,458	4,428	4,459	5,819	6,051	5,961	5,810	6,027	5,878
New orders									Unfilled orders			
All manufacturing industries:												
Total.....	53,796	54,854	53,868	56,198	55,869	55,696	86,691	87,757	88,488	86,952	87,765	88,480
Total, excluding transportation.....	47,224	47,624	47,454	49,152	48,663	48,063	56,160	56,693	57,296	56,713	56,982	54,698
Durable goods industries, total.....	28,620	29,657	28,909	30,337	30,348	31,449	83,702	84,795	85,539	83,973	84,827	85,380
Primary metals, total.....	4,511	4,419	4,787	4,886	4,906	4,997	6,815	6,998	7,375	7,320	7,438	7,107
Blast furnaces, steel mills.....	1,965	1,855	2,079	2,215	2,163	2,374	3,136	3,226	3,526	3,556	3,581	3,520
Fabricated metal products.....	3,122	3,116	3,024	3,287	3,215	3,133	10,383	10,440	10,569	10,495	10,449	9,861
Machinery, except electrical, total.....	5,170	5,551	5,390	5,658	5,812	6,007	16,701	17,010	17,089	16,833	17,068	15,529
Engines and turbines.....	373	520	540	463	535	554	4,817	4,948	4,886	4,837	4,944	4,164
Construction, mining, and material handling equipment.....	686	770	751	764	814	748	2,170	2,189	2,183	2,226	2,198	1,931
Metalworking machinery.....	238	272	310	257	291	368	1,585	1,676	1,754	1,580	1,680	1,776
General industrial machinery.....	496	572	527	520	605	527	1,657	1,676	1,660	1,656	1,678	1,549
Electrical machinery, total.....	3,623	3,786	3,667	3,744	3,814	3,864	13,665	13,674	13,606	13,491	13,521	13,092
Electrical transmission and distribution equipment and industrial apparatus.....	749	729	717	759	777	734	3,576	3,568	3,564	3,570	3,581	3,268
Household appliances, including radio and TV.....	771	651	652	749	643	774	641	558	581	578	547	636
Communication equipment.....	957	1,182	1,068	1,014	1,108	1,058	5,568	5,647	5,560	5,463	5,534	5,388
Transportation equipment, total.....	6,572	7,230	6,414	7,046	7,206	7,633	30,531	31,064	31,192	30,239	30,783	33,782
Aircraft, missiles, and parts.....	2,694	2,815	2,201	2,836	2,695	2,625	23,388	23,681	23,802	23,209	23,461	26,969
All other durable goods industries.....	5,622	5,555	5,627	5,716	5,395	5,815	5,607	5,609	5,698	5,595	5,568	6,009
Nondurable goods industries, total.....	25,176	25,197	24,959	25,861	25,621	24,247	2,989	2,962	2,949	2,979	2,938	3,100
Industries with unfilled orders.....	6,934	6,890	6,799	7,119	6,993	6,739	2,989	2,962	2,949	2,979	2,938	3,100
Industries without unfilled orders.....	18,242	18,307	18,160	18,742	18,528	17,508	-	-	-	-	-	-

- Represents zero.

^PPreliminary.^rRevised.¹Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Mar. 1970 ^P	Feb. 1970 ^R	Jan. 1970	Mar. 1970 ^P	Feb. 1970 ^R	Mar. 1969	Mar. 1970 ^P	Feb. 1970 ^R	Jan. 1970	Mar. 1970 ^P	Feb. 1970 ^R	Mar. 1969
Shipments												
All manufacturing industries, total...	54,860	55,588	55,099	57,012	56,249	55,254	96,682	96,603	96,062	97,272	97,181	90,885
Durable goods industries, total.....	29,715	30,402	30,042	31,189	30,780	31,054	64,194	63,969	63,835	64,530	64,244	59,293
Nondurable goods industries, total.....	25,145	25,186	25,057	25,823	25,469	24,200	32,488	32,634	32,227	32,742	32,937	31,592
Industry groups arranged by market categories:												
Home goods and apparel.....	4,329	4,368	4,484	4,626	4,559	5,025	9,784	9,893	9,903	9,765	9,852	9,648
Consumer staples.....	11,002	10,904	10,854	11,117	10,881	10,029	12,303	12,358	12,087	12,318	12,489	11,849
Equipment and defense products, except automotive.....	9,254	9,505	9,073	9,782	9,685	9,247	25,907	25,921	25,884	26,147	26,006	23,195
Automotive equipment.....	4,126	4,370	4,185	4,494	4,515	5,005	5,292	5,298	5,356	5,340	5,451	5,373
Construction materials, supplies, and intermediate products.....	4,422	4,539	4,537	4,370	4,199	4,476	7,967	8,016	7,990	8,108	8,095	7,773
Other materials and supplies and intermediate products.....	21,727	21,902	21,966	22,623	22,410	21,472	35,429	35,117	34,842	35,594	35,288	33,047
Supplementary series: ²												
Household durable goods industries.....	1,973	1,970	1,937	2,060	1,987	2,216	5,121	5,158	5,156	5,110	5,133	4,810
Machinery and equipment industries.....	6,124	6,604	6,380	6,804	6,721	6,579	16,724	16,570	16,425	16,826	16,657	14,792
Defense products industries (old series).....	4,301	4,308	3,970	4,470	4,426	4,159	12,934	13,050	13,101	13,036	13,008	11,837
Defense products (new series)*.....	1,977	1,915	1,798	2,059	1,968	1,954	7,298	7,293	7,472	7,350	7,280	7,383
New orders												
All manufacturing industries, total...	53,796	54,854	53,868	56,198	55,869	55,696	86,691	87,757	88,488	86,952	87,765	88,480
Durable goods industries, total.....	28,620	29,657	28,909	30,337	30,348	31,449	83,702	84,795	85,539	83,973	84,827	85,380
Nondurable goods industries, total.....	25,176	25,197	24,959	25,861	25,521	24,247	2,989	2,962	2,949	2,979	2,938	3,100
Industry groups arranged by market categories:												
Home goods and apparel.....	4,419	4,357	4,443	4,650	4,538	5,046	2,050	1,966	1,974	1,948	1,933	2,213
Consumer staples.....	10,999	10,904	10,848	11,108	10,885	10,014		1,966	1,974	1,948	1,933	2,213
Equipment and defense products, except automotive.....	8,635	9,669	8,880	9,248	9,554	9,296	47,586	48,316	48,261	47,156	47,858	47,834
Automotive equipment.....	4,016	4,262	4,122	4,325	4,403	4,955		48,316	48,261	47,156	47,858	47,834
Construction materials, supplies, and intermediate products.....	4,341	4,420	4,243	4,431	4,256	4,588	10,393	10,473	10,592	10,546	10,487	10,166
Other materials and supplies and intermediate products.....	21,386	21,242	21,332	22,436	22,233	21,797	26,662	27,002	27,661	27,302	27,487	28,267
Supplementary series: ²												
Household durable goods industries.....	2,051	1,954	1,899	2,074	1,969	2,220	1,670	1,593	1,607	1,583	1,570	1,811
Machinery and equipment industries.....	6,039	6,603	6,414	6,469	6,810	6,818	24,775	25,161	25,160	24,759	25,094	22,671
Defense products industries (old series).....	3,947	4,282	3,549	4,159	4,086	4,009	29,472	29,826	29,852	29,175	29,485	33,025
Defense products (new series)*.....	1,585	1,872	1,812	1,701	1,731	2,262	19,997	20,389	20,433	19,817	20,175	22,323

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and ship building industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historical data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. ^{Preliminary.} ^RRevised. ¹Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. ²The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Machinery and equipment industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, communication equipment and electronic components), ship building and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the ship building industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and ship building. Thus, it differs from the old series in that it includes defense activity in ship building and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1964-1969	
	Feb.-Mar.	Jan.-Feb.	Dec.-1969 Jan. 1970	3 months		12 months		Average rise	Average decline
				Dec. 1969-Mar. 1970	Sept.-Dec. 1969	June-Sept. 1969	Mar. 1969-Mar. 1970		
Shipments:									
All manufacturing industries.....	-1.3	+0.9	-0.3	-0.2	-0.7	+1.0	+0.3	+1.4	-1.1
Durable goods industries, total.....	-2.3	+1.2	-0.5	-0.5	-1.6	+1.8	+0.1	+1.9	-2.1
Non durable goods industries, total.....	-0.2	+0.5	-0.1	+0.1	+0.5	+0.1	+0.6	+1.0	-0.5
Total inventories:									
All manufacturing industries.....	+0.1	+0.6	+0.2	+0.3	+0.6	+0.7	+0.6	+0.7	-0.1
New orders:									
All manufacturing industries.....	-1.9	+1.9	-2.7	-0.9	-0.9	+1.8	+0.1	+1.8	-1.5
Durable goods industries, total.....	-3.5	+2.6	-4.6	-1.8	-2.0	+3.3	-0.3	+3.1	-2.4
Non durable goods industries, total.....	-0.1	+1.0	-0.4	+0.2	+0.5	0.0	+0.6	+1.1	-0.6
Unfilled orders:									
Durable goods industries, total.....	-1.3	-0.9	-1.3	-1.2	+0.1	+0.2	-0.1	+1.1	-0.6

Table 4.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio ¹ (months' backlog)			
	Mar. 1970 ^p	Feb. 1970 ^r	Jan. 1970	Mar. 1969	Mar. 1970 ^p	Feb. 1970 ^r	Jan. 1970	Mar. 1969
All manufacturing industries, total.....	1.76	1.74	1.74	1.70	2.55	2.54	2.58	2.67
Durable goods industries, total.....	2.16	2.10	2.12	2.00	3.09	3.06	3.13	3.21
Stone, clay, and glass products.....	1.65	1.67	1.70	1.64	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.78	1.69	1.58	1.67	1.45	1.46	1.44	1.44
Fabricated metals.....	2.10	2.06	2.01	2.12	3.60	3.53	3.55	3.68
Machinery, except electrical.....	2.45	2.37	2.39	2.23	3.05	3.02	3.09	2.90
Electrical machinery.....	2.61	2.55	2.63	2.34	3.76	3.68	3.81	3.56
Transportation equipment.....	2.18	2.11	2.29	1.97	6.10	6.04	6.60	7.19
Instruments and related products.....	2.14	2.11	2.12	2.15	(NA)	(NA)	(NA)	(NA)
Non durable goods industries, total.....	1.29	1.30	1.29	1.33	0.43	0.43	0.43	0.48
Food and kindred products.....	0.86	0.88	0.85	0.93	(X)	(X)	(X)	(X)
Tobacco products.....	4.94	5.05	4.75	5.42	(X)	(X)	(X)	(X)
Textile mill products.....	1.93	1.98	1.94	1.99	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.14	1.13	1.13	1.11	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.63	1.57	1.64	1.59	(X)	(X)	(X)	(X)
Petroleum and coal products.....	1.10	1.07	1.05	1.05	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.28	1.26	1.30	1.36	(X)	(X)	(X)	(X)

(NA) Not available. P Preliminary. R Revised. (X) Not applicable.

¹Excludes the following industries with no unfilled orders: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

Table 5.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Mar. 1970 ^b	Feb. 1970 ^r	Jan. 1970	Mar. 1970 ^b	Feb. 1970 ^r	Mar. 1969	Mar. 1970 ^b	Feb. 1970 ^r	Jan. 1970	Mar. 1970 ^b	Feb. 1970 ^r	Mar. 1969
	Total						Materials and supplies					
All manufacturing industries, total..	96,682	96,603	96,062	97,272	97,181	90,885	29,527	29,411	29,227	29,496	29,486	28,496
Durable goods industries, total.....	64,194	63,969	63,835	64,530	64,244	59,283	17,694	17,615	17,598	17,456	17,512	16,763
Stone, clay, and glass products.....	2,526	2,542	2,506	2,610	2,593	2,440	814	819	804	813	816	742
Primary metals.....	8,342	8,126	8,104	8,300	8,182	7,588	2,999	2,916	2,888	2,845	2,852	2,681
Machinery (electrical and nonelectrical).....	22,925	22,826	22,648	23,070	22,897	20,705	5,532	5,530	5,484	5,495	5,470	4,972
Transportation equipment.....	15,504	15,532	15,636	15,580	15,632	14,417	3,164	3,182	3,244	3,168	3,241	3,392
All other durable goods industries.....	14,897	14,943	14,941	14,970	14,940	14,143	5,185	5,168	5,178	5,135	5,133	4,976
Nondurable goods industries, total.....	32,488	32,634	32,227	32,742	32,937	31,592	11,833	11,796	11,629	12,040	11,974	11,733
Chemicals and allied products.....	6,639	6,613	6,551	6,761	6,745	6,295	2,264	2,252	2,235	2,277	2,258	2,138
Petroleum and coal products.....	2,307	2,318	2,320	2,304	2,286	2,066	514	542	535	522	525	476
Rubber and plastics products, n.e.c.....	1,985	1,951	1,914	2,023	1,978	1,833	613	597	592	600	588	548
All other nondurable goods industries....	21,557	21,752	21,442	21,654	21,928	21,398	8,442	8,405	8,267	8,641	8,603	8,571
	Work in process						Finished goods					
All manufacturing industries, total..	35,028	35,032	35,090	35,205	35,146	32,373	32,127	32,160	31,745	32,571	32,549	30,016
Durable goods industries, total.....	30,163	30,005	29,987	30,367	30,134	27,456	16,337	16,349	16,250	16,707	16,598	15,074
Stone, clay, and glass products.....	404	411	387	438	424	399	1,308	1,312	1,315	1,359	1,353	1,299
Primary metals.....	2,824	2,737	2,818	2,866	2,795	2,613	2,519	2,473	2,398	2,589	2,535	2,294
Machinery (electrical and nonelectrical).....	10,924	10,849	10,805	10,982	10,919	9,933	6,469	6,447	6,359	6,593	6,508	5,800
Transportation equipment.....	10,817	10,797	10,845	10,863	10,805	9,600	1,523	1,553	1,547	1,549	1,586	1,425
All other durable goods industries.....	5,194	5,211	5,132	5,218	5,191	4,911	4,518	4,564	4,631	4,617	4,616	4,256
Nondurable goods industries, total.....	4,865	5,027	5,103	4,838	5,012	4,917	15,790	15,811	15,495	15,864	15,951	14,942
Chemicals and allied products.....	891	886	962	892	893	947	3,484	3,475	3,354	3,592	3,594	3,210
Petroleum and coal products.....	542	537	534	535	526	481	1,251	1,239	1,251	1,247	1,235	1,109
Rubber and plastics products, n.e.c.....	318	327	319	318	326	313	1,054	1,027	1,003	1,105	1,064	972
All other nondurable goods industries....	3,114	3,277	3,288	3,093	3,267	3,176	10,001	10,070	9,887	9,920	10,058	9,651

^bPreliminary.^rRevised.

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this



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definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories--End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and nondurable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders Received and Unfilled Orders--Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.